Claims 2-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term “amorphia form” as recited in at least claim 4 is not art recognized and is therefore unclear.

A ratio involves two numbers and it is not recited what the “ratio” of crosslinking monomers is a ratio with as recited in claim 2.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishida et al. (US 4,173,600) in view of Troy et al. (US 6,130,290) or Carson et al. (US 5,321,056).

Kishida et al. discloses a core shell impact modifier having an inner layer “A” which may contain 0-49 parts of monomers such as butadiene (column 4, lines 16-33) and a layer "B” encompassing applicants layer “A-2” which may be comprised of 60-100 percent diene monomer such as butadiene (column 5, lines 24-34).Thermoplastic resins such

as polyesters may be added at column 8, lines 28-37 as well as “Sample (30)” of Table 4.

Troy discloses hydroxyl containing impact modified polyesters (abstract) wherein the polyester is chosen to be amorphous for clarity and in which the (column 1, lines 44-57) and which has a refractive index of 1.55-1.60 (patent claim 6).

Carson discloses hydroxyl group containing impact modifiers for amorphous polyesters (abstract). Patentees disclose that use of hydroxyl monomers in the shell increases impact strength at column 5, lines 25-35.

The primary reference does not disclose whether or not their polyesters are amorphous and refractive indices thereof and does not use hydroxyl containing monomers in the shells.

It would have been obvious to a practitioner having an ordinary skill in the arty at the time of the invention to use the amorphous polyesters of the secondary references (which inherently have applicants refractive indices) as well as to use hydroxyl monomers in the shells of the primary reference, motivated to extend the advantages of the secondary references (improved impact strength, clarity etc) to the primary reference absent any showing of surprising or unexpected results.

Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Troy et al. (US 5,599,854) in view of Troy et al. (US 6,130,290) or Carson et al. (US 5,321,056).

Troy ‘894 discloses a composition containing impact modifiers and polyesters In which a core shell impact modifier is produced by first polymerizing butadiene to 60-90%

conversion and then continuing the polymerization in the presence of additional monomers (column 2, lines 1-21), a process which would result in formation of a polybutadiene core just prior to the second addition of monomers and a layer of 10-40% butadiene on the core as in applicants “A-2”.

The primary reference does not disclose whether or not their polyesters are amorphous and refractive indices thereof and does not use hydroxyl containing monomers in the shells.

It would have been obvious to a practitioner having an ordinary skill in the arty at the time of the invention to use the amorphous polyesters of the secondary references (which inherently have applicants refractive indices) as well as to use hydroxyl monomers in the shells of the primary reference, motivated to extend the advantages of the secondary references (improved impact strength, clarity etc) to the primary reference absent any showing of surprising or unexpected results.

Turner et al. (US 6,287,6566), cited of interest, discloses numerous advantages known in the art for use of amorphous polyesters as compared to crystalline ones. Note column 1 in this re.

Applicant's arguments filed 2-28-08 have been fully considered but they are not persuasive. Applicants arguments are based on unexpected results. However, unexpected results must be with the closest prior art, MPEP 716 and applicants have presented no comparative data which are examples present in the prior art relied upon which in the instant case is the closest prior art. Comparative examples 1-4, 6 and have

inner core butadiene contents outside the teachings of Troy and none of the comparative examples appear to have been produced by the processes of the prior art. Furthermore applicants rely on limitations not present in the claims. For instance paragraphs 34 and 38 of applicants published specification discloses that applicants clarity is due to refractive index matching. However there is nothing in the instant claims either explicitly or implicitly requiring matrix and core-shell phases be refractive index matched. Applicants specification also implies that impact strength and transparency are due to compatibility or lack thereof of shell and matrix phases in paragraph 34. However, the term "aromatic polyester" or "co-polyester" can include polyesters with substantial nonaromatic diol components or aromatic diol components and thus have high or low aromatic character and therefore in general it cannot reasonably be said that a particular level or aromatic monomer in the shells would lead to compatibility or lack thereof. Therefore applicants results rely on limitations not present in the claims for this reason also. Furthermore it is known in the art that superior transparency can be conferred by refractive index matching and that poor compatibility leads to poor mechanical properties and it is also known to adjust the character of the shell to that of the matrix to avoid such problems. Lastly it is noted that Table 1 in applicants specification shows some overlap in transparency and impact strength between comparative and non comparative examples.

The newly cited prior art discloses multi component blends in which refractive indices of the various components are matched for maximum clarity.

Any inquiry concerning this communication should be directed to Jeffrey C. Mullis at telephone number 571 272 1075.

Jeffrey C. Mullis
Primary Examiner
Art Unit 1796

JCM

6-2-08

/Jeffrey C. Mullis/

Primary Examiner, Art Unit 1796